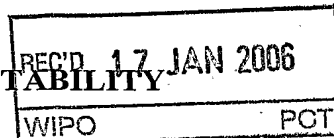


PATENT COOPERATION TREATY
PCT
INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter II of the Patent Cooperation Treaty)
(PCT Article 36 and Rule 70)



Applicant's or agent's file reference FP21094	FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. PCT/AU2005/000139	International filing date (day/month/year) 3 February 2005	Priority date (day/month/year) 4 February 2004
International Patent Classification (IPC) or national classification and IPC Int. Cl. C21B 7/10 (2006.01) F27B 3/24 (2006.01) F27B 1/24 (2006.01) F27D 1/12 (2006.01)		
Applicant TECHNOLOGICAL RESOURCES PTY LIMITED et al		

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.	
2. This REPORT consists of a total of 5 sheets, including this cover sheet.	
3. This report is also accompanied by ANNEXES, comprising:	
a. <input type="checkbox"/> (sent to the applicant and to the International Bureau) a total of sheets, as follows:	
<input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).	
<input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.	
b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or table related thereto, in electronic form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).	
4. This report contains indications relating to the following items:	
<input checked="" type="checkbox"/> Box No. I	Basis of the report
<input type="checkbox"/> Box No. II	Priority
<input type="checkbox"/> Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
<input type="checkbox"/> Box No. IV	Lack of unity of invention
<input checked="" type="checkbox"/> Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
<input type="checkbox"/> Box No. VI	Certain documents cited
<input type="checkbox"/> Box No. VII	Certain defects in the international application
<input type="checkbox"/> Box No. VIII	Certain observations on the international application

Date of submission of the demand 2 September 2005	Date of completion of this report 01 January 2006	10 JAN 2006
Name and mailing address of the IPEA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaustalia.gov.au Facsimile No. (02) 6285 3929	Authorized Officer M. BREMERS Telephone No. (02) 6283 2052	

Box No. I Basis of the report

1. With regard to the language, this report is based on:

- ☒ The international application in the language in which it was filed
- ☐ A translation of the international application into _____, which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3(a) and 23.1 (b))
- ☐ publication of the international application (under Rule 12.4(a))
- ☐ international preliminary examination (Rules 55.2(a) and/or 55.3(a))

2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

- ☒ the international application as originally filed/furnished
- ☐ the description:
- | | |
|--------|--|
| pages | as originally filed/furnished |
| pages* | received by this Authority on _____ with the letter of |
| pages* | received by this Authority on _____ with the letter of |
- ☐ the claims:
- | | |
|--------|---|
| pages | as originally filed/furnished |
| pages* | as amended (together with any statement) under Article 19 |
| pages* | received by this Authority on _____ with the letter of |
| pages* | received by this Authority on _____ with the letter of |
- ☐ the drawings:
- | | |
|--------|--|
| pages | as originally filed/furnished |
| pages* | received by this Authority on _____ with the letter of |
| pages* | received by this Authority on _____ with the letter of |

☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to the sequence listing (*specify*): _____

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to the sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims 24-27, 37-39	YES
	Claims 1-23, 28-36, 40-42	NO
Inventive step (IS)	Claims	YES
	Claims 1-42	NO
Industrial applicability (IA)	Claims 1-42	YES
	Claims	NO

2. Citations and explanations (Rule 70.7)

D1: WO 2000/063446

D7: WO 2002/088398

D2: GB 2344639

D8: US 4787605

D3: GB 2009898

D9: US 4669708

D4: EP 52039

D5: Derwent Abstract Accession No. 30670E/15, SU 840112

D6: Derwent Abstract Accession No. 2003-740751/70, JP 2003-279265

Novelty and Inventive Step

Independent Claim 1 discloses a metallurgical vessel comprising a plurality of cooling panels with internal passages for coolant flow and each panel is provided with a plurality of projections that project laterally through the outer shell of the vessel. These features are disclosed by documents D1, D4, D5 and D8. As a result, Claim 1 is not novel.

Independent Claim 28 discloses a cooling panel comprising internal passages for coolant flow and a plurality of projections that project laterally through the outer shell of the vessel. These features are disclosed by documents D1-D9. As a result, Claim 28 is not novel.

Independent Claim 40 discloses a method of mounting a cooling panel in a metallurgical vessel. This is disclosed by documents D1, D3-D5, D7 and D9. As a result, Claim 40 is not novel.

Furthermore dependent Claims 2-23, 29-36 and 41-42 are not novel in light of the cited documents.

Claims 1-42 lack an inventive step in light of documents D1-D9. While these documents may not disclose a metallurgical vessel with a plurality of lances or connector straps, it is considered that these would be common general knowledge to a person skilled in the art and therefore the claims cannot be considered to involve and inventive step.

Box No. VI **Certain documents cited**

1. Certain published documents (Rule 70.10)

Application No. Patent No.	Publication date (day/month/year)	Filing date (day/month/year)	Priority date (valid claim) (day/month/year)
WO 2004/106831	9 December 2004	27 May 2004	27 May 2003

This document discloses all the features of Claims 1-42.

2. Non-written disclosures (Rule 70.9)

Kind of non-written disclosure

Date of non-written disclosure
(day/month/year)Date of written disclosure
referring to non-written disclosure
(day/month/year)

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

1. Claim 32 is directed to “a cooling panel as claimed in any one of claims 17 or 18”. However, Claims 17 and 18 are directed towards a metallurgical vessel, not a cooling panel. This results in a lack of clarity in Claim 32.